Original Article

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Analysis of Patients Admitted to the Orthopedic Clinic from the Emergency Department

Acil Servisten Ortopedi Kliniğine Yatırılan Hastaların Analizi

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ABSTRACT

Objective: Trauma cases have an important place among patients admitted to the emergency department (ED). Orthopedics and traumatology clinic is among the most frequently consulted and hospitalized departments. In this study, we analyzed the patients admitted to the orthopedics clinic from the ED.

Methods: This study was a retrospective analysis of all patients admitted to the ward or intensive care unit (ICU) on behalf of the orthopedics clinic from the ED of a second-level state hospital between 01.01.2022 and 31.12.2022. Patient data were accessed through hospital electronic data. Age, gender, time of admission, forensic status, type of trauma, traumatic lesions, femoral neck fractures, length of hospitalization and mortality were analyzed.

Results: Of the patients 50.4% were male. The most common presentation was in summer months and during working hours. Of the patients 17.6% were forensic cases. Forensic cases were more common in the young adult age group and in males. The mean age of the patients was 53.2±26.9 years and the most common age range was 61-80 years. Falls and traffic accidents were the most common reasons for admission. The most common hospitalization was due to femur fracture. Femur fractures were most common in males and in the age range of 81-100 years. Lower end of humerus fractures was more common in pediatric age group, tibia fractures in young adult age group and femoral neck fractures in elderly patients. Femoral neck fractures constituted 31.6% of all cases. Of the 8 patients hospitalized in the ICU, 7 were admitted due to femoral neck fractures and all of them (1.5%) died due to complications.

ÖZ

Amaç: Travma olguları acil servise başvuran hastalar arasında önemli bir yere sahiptir. En sık konsültasyon istenen ve hastaneye yatış yapılan bölümlerin arasında ortopedi ve travmatoloji kliniği yer almaktadır. Bu çalışmada acil servisten ortopedi kliniğine yatırılan hastaların analizi yapılmıştır.

Yöntemler: Bu çalışma retrospektif olarak 01.01.2022-31.12.2022 tarihleri arasında ikinci basamak bir devlet hastanesinin acil servisinden ortopedi kliniği adına servis veya yoğun bakım ünitesine (YBÜ) yatırılan tüm hastaların analizi şeklinde yapılmıştır. Hasta verilerine hastane elektronik verileri üzerinden ulaşıldı. Hastalarda yaş, cinsiyet, başvuru zamanı, adli olgu durumu, travma çeşidi ve hastalarda görülen travmatik lezyonlar, femur boyun kırıkları, hastanede yatış süreleri ve mortalite incelendi.

Bulgular: Hastaların %50,4'ü erkekti. En sık başvuru yaz aylarında ve mesai saatlerinde oldu. Hastaların %17,6'sı adli olguydu. Adli olgular genç erişkin yaş grubunda ve erkeklerde daha fazlaydı. Hastaların yaş ortalaması 53,2±26,9 olup en sık hasta yatışı 61-80 yaş aralığındaydı. Düşme ve trafik kazası en sık başvuru nedenleriydi. En sık hasta yatışı femur kırığına bağlı oldu. Femur kırıkları en fazla erkeklerde ve 81-100 yaş aralığında görüldü. Çocuk yaş grubunda humerus alt uç, genç erişkin yaş grubunda tibia ve ileri yaş hastalarda ise femur boyun kırıkları daha fazla görüldü. Femur boyun kırıkları tüm olgular içerisinde %31,6 orandaydı. YBÜ'ye yatırılan 8 hastanın 7'si femur boyun kırığı nedeniyle yatırıldı ve hastaların tamamı (%1,5) gelişen komplikasyonlar nedeniyle ölümle sonuçlandı.

Sonuç: Acil servisten ortopedi kliniğine yapılan hasta yatışlarının büyük çoğunluğu kemik kırıkları nedeniyledir. Özellikle ileri

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ABSTRACT

Conclusion: The majority of hospitalizations from the ED to the orthopedic clinic are due to bone fractures. It should be kept in mind that femoral neck fractures are more common especially in the elderly and may be mortal.

Keywords: Emergency department, trauma, orthopedics and traumatology

ÖZ

yaşlarda femur boyun kırıklarının daha sık görüldüğü ve mortal seyredebileceği unutulmamalıdır.

Anahtar Kelimeler: Acil servis, travma, ortopedi ve travmatoloji

Introduction

Trauma-related injuries have an important place among emergencies resulting in disability and death both worldwide and in our country. It was observed that unintentional trauma cases caused the death of 136,053 people in the United States of America (USA) in 2014 (1). Trauma is an extraordinary event that disrupts physical and vital integrity and occurs with the effect of mechanical and chemical energies. Orthopedic injuries include all injuries of the skeletal system except the head region, which occur as a result of mechanical factors such as accidents, natural disasters and gunshot wounds (GW) (2). Apart from simple injuries, orthopedic traumas may negatively affect human life in the long term with physical disability and psychological side effects. Except for pelvic fractures that do not cause severe bleeding, simple bone fractures and soft tissue traumas do not constitute an emergency. However, if accompanied by neurovascular injury, such cases are considered as emergencies because disability in the extremities may be in question (3,4).

Trauma cases have an important place among patients admitted to the emergency department (ED). Fractures and muscle, ligament and joint injuries occurring in soft tissues are the most common orthopedic traumas. In ED, orthopedics and traumatology clinic is one of the most frequently consulted and hospitalized departments in trauma cases (5,6). In this study, we planned to present updated data to the literature by analyzing the patients hospitalized from the ED to the orthopedics and traumatology clinic in a one-year period.

Methods

The study was started after the approval of the ethics committee of Nevşehir Hacı Bektaş Veli University Rectorate Non-Interventional Clinical Research Publication Ethics Committee dated 16.10.2023 and numbered 2023/02 decision. In this study, all patients admitted to the ward or intensive care unit (ICU) on behalf of the orthopedics clinic from the ED of a second-level state hospital between 01.01.2022-31.12.2022 were analyzed. Patient data were analyzed for age, gender, time of admission, forensic case status, type of trauma and traumatic lesions seen in patients. According to the "International Classification of Disease" (ICD) diagnostic codes "W00-W20", all cases due to falls in the diagnostic code range "W00-W20" were evaluated under the heading "falls", all injuries with sharp objects were evaluated under the heading "piercing and cutting instrument injury (PCII)", and patients who presented with joint, muscle and soft tissue pain without trauma and patients who presented for hospitalization outside working hours were evaluated under the heading 'other'. The percentage of femoral neck fractures and pertrochanteric fractures among all cases was determined. The distribution of these fractures according to age and gender was evaluated. With the data obtained in the analysis, comparative analyses of cases and hospitalizations were made according to months, gender and age range. The average length of hospitalization was determined for patients in the ward and ICU. The percentage of cases that ended in death and the causes of death were determined.

Data collection was done retrospectively and electronically through the hospital software system.

Statistical Analysis

Statistical Package for Social Sciences for Windows 21.0 (SPSS 21.0) was used to analyze the data. Descriptive statistics (frequency, percentage distribution) and chi-square test were used for the comparison of categorical variables between two groups. Results were expressed as mean ± standard deviation or frequency (percentage) and $p<0.05$ was considered statistically significant at 95% confidence interval.

Results

Within the scope of the study, 563 patients were evaluated. 50.4% of the patients were male. The mean age of the patients was 53.2±26.9 years, the youngest patient was 4 months old and the oldest patient was 101 years old. When patient admissions were analyzed according to age ranges, the highest number of hospitalizations was in the 61-80 age range (29.6%) (Figure 1). The time of admission to the ED was analyzed in three different time periods. In order of frequency, 282 patients (50.1%) were admitted between 08.00-15.59, 238 patients (42.3%) between 16.00-23.59, and 43 patients (7.6%) between 00.00-07.59. When the distribution of patients according to the months of admission was analyzed, the highest number of cases was in July and the number of cases was higher in the summer months compared to other seasons. The fewest cases were seen in January and February (Figure 2). Of the patients, 99 (17.6%) were evaluated as forensic cases. Seventy of the forensic cases were males (70.7%) and there was a significant difference between forensic cases in terms of gender ($p<0.001$, chi-square: 19.730). According to the age range of the forensic patients, most of them were seen in the 21-40 age range (32.3%) ($p<0.001$, chi-square: 62.542).

The most common reason for hospital admission was falls (Figure 3). Of the cases categorized as "other", 50 (80.6%) were non-emergency cases of gonarthrosis and coxarthrosis with out-of-hours hospitalization. When compared by gender, falls (54%) and gonarthrosis and coxarthrosis (67.7%) were more common in women, while traffic accidents (70.2%) and occupational accidents (87.5%) were more common in men (p<0.001, chi-square: 38.898). When the reasons for admission according to months were analyzed, no significant difference was observed (p=0.459, chi-square: 66,996). When Table 1 was examined, it was observed that especially injuries due to falls and traffic accidents increased in summer months, but this increase was not statistically significant. When the admissions were analyzed according to age ranges, a significant difference was observed (p<0.001, chi-square: 151,863) (Table 2). Falls were more common in the 61-100 age range and traffic accidents were more common in the 0-60 age range.

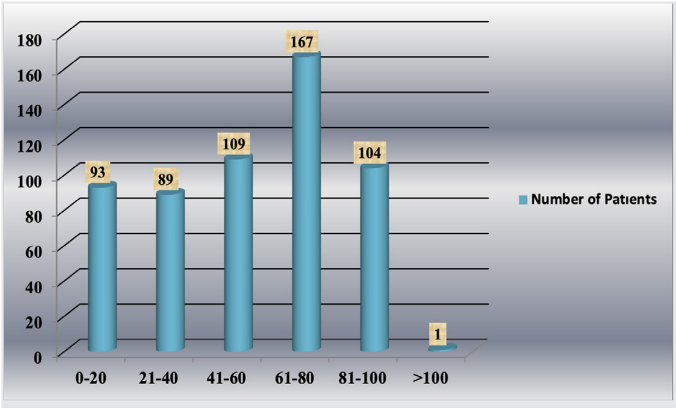

Figure 1. Distribution of patients according to age ranges

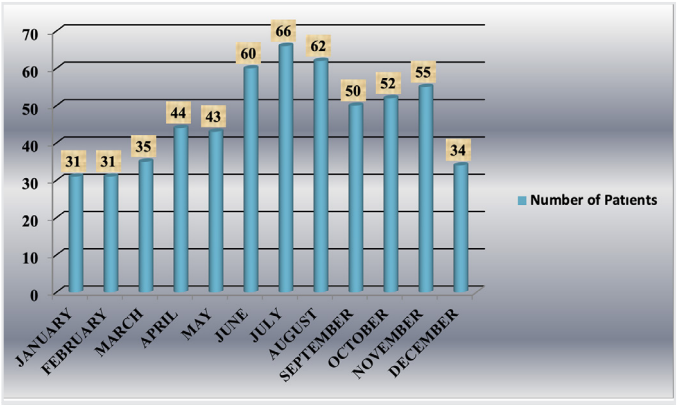

Figure 2. Distribution of patient hospitalizations according to months

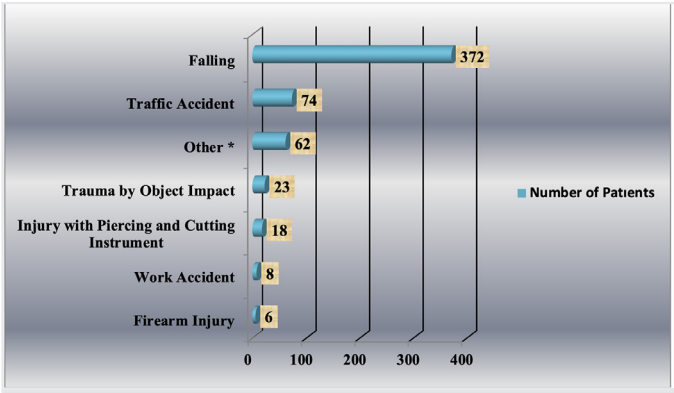

Figure 3. Distribution of the reasons for admission

*Patients presenting with joint and muscle pain without acute trauma and patients admitted for hospitalization outside working hours

When the traumatic injuries seen in the patients were analyzed, femur fractures (39.3%) and tibia fractures (16%) were the most common reasons for hospitalization (Table 3). Among femur fractures, the number of patients hospitalized for femoral neck and pertrochanteric fractures was 178, which constituted 31.6% of all patients and 80.5% of femur fractures. Femoral upper end fractures were compared according to gender and age ranges and significant differences were observed (p<0.001, chi-square: 20,197, p<0.001, chi-square: 208,782) (Table 4). When the table was analyzed, it was observed that there were more males (63.4%) and most of the cases were in the 81-100 age range (48.8%). When the diagnoses were analyzed according to age ranges, 59% of humeral fractures were in the 0-20 age group, 42.2% of femur fractures were in the 81-100 age range, and 70% of gonarthrosis/coxarthosis were in the 61-80 age range (p<0.001, chi-square: 386,012) (Table 5). Of the humerus fractures, 33 (54%) were humerus lower end fractures and the age range was 0-10 years. When the types of trauma were analyzed according to the presentations, significant differences emerged and it was observed that tibia (31%) and femur fractures (25.6%) were the most common in traffic accidents. The most common cause of tendon lacerations was PCII (88%) (p<0.001, chi-square: 570,427). While the number of cases with multiple fractures or injuries was 46 (8.1%), the number of cases with simultaneous fractures of radius and ulna was 18 (3.1%), and the number of cases with simultaneous fractures of tibia and fibula was 26 (4.6%).

Of the patients, 555 were hospitalized in the ward (98.5%) and 8 in the ICU (1.5%). The mean duration of hospitalization was 3±3.7 days for all patients, 2.75 days for patients hospitalized in the ward and 23 days for patients hospitalized in ICU. In this study, the mortality rate was 1.4% in patients hospitalized by the orthopedic clinic and all 8 patients followed up in ICU died. In our study, 75% of the patients hospitalized in ICU were hospitalized for femoral neck fracture and/or pertrochanteric fracture. The mean age of the patients who died was 76.3 years. Of the 8 cases who died, 7 patients were hospitalized in ICU for femoral neck fracture and/or pertrochanteric fracture. The causes of death were pneumonia in three patients, postoperative sepsis in two patients, subarachnoid brain hemorrhage due to multiple trauma, acute renal failure and pulmonary embolism in the other patients.

Discussion

Traumas have an important place in ED admissions. Patients may be hospitalized for surgical procedure and/or clinical follow-up if deemed necessary. Orthopedics and traumatology clinic ranks

Table 1. Distribution of reasons for admission according to months

Months	Reason for application							
	Fall	Trauma bY object impact	Traffic accident	Work accident	PCII*	GW*	Another**	Total
January	24	1	2	3	0	0	1	31
February	26	1	1	0	0	1	2	31
March	23	3	4	0	1	0	4	35
April	27	3	6	1	3	0	4	44
May	26	1	5	1	2	2	6	43
June	40	2	9	0	4	0	5	60
July	44	2	11	2	2	1	4	66
August	42	3	8	0	1	0	8	62
September	31	1	7	0	1	1	9	50
October	37	1	9	0	0	0	5	52
November	31	4	7	1	2	0	10	55
December	21	1	5	0	2	1	4	34
Total	**372**	**23**	**74**	**8**	**18**	**6**	**62**	**563**

p=0.459, chi-square: 66.996, *PCII: Piercing and cutting instrument injury, ***Patients presenting with joint and muscle pain without acute trauma and patients admitted for hospitalization outside working hours, GW: Gunshot wounds

Table 2. Reasons for presentation to the emergency department according to age ranges

Age range	Reason for application							
	Fall	Trauma by object impact	Traffic accident	Work accident	PCII*	GW*	Another**	Total
0-20	57	6	22	0	5	2	1	93
21-40	44	7	21	3	7	2	5	89
41-60	57	4	21	5	6	2	14	109
61-80	112	5	10	0	0	0	40	167
81-100	101	1	0	0	0	0	2	104
>100	1	0	0	0	0	0	0	1
Total	**372**	**23**	**74**	**8**	**18**	**6**	**62**	**563**

p<0.001, chi-square: 151.863, *PCII; Piercing and cutting instrument injury, ***Patients presenting with joint and muscle pain without acute trauma and patients admitted for hospitalization outside working hours, GW: Gunshot wounds

first among the branches in which consultation is requested from the ED and patients are hospitalized (6-8). Dönmez et al. (6) observed that simple traumas such as bone fractures, tendon cuts and joint dislocations were the most common reasons for requesting consultation with a rate of 33% in their study. In the same study, the surgical clinics from where consultation was most frequently requested were ophthalmology and orthopedics clinics, while the highest number of patients were hospitalized in cardiology and orthopedics clinics.

In this study, 50.4% of the cases were male. In a study by Duman et al. (9) on traumas encountered in the ED, 63.4% of the patients were male. In a study on blunt force trauma encountered in the ED, the rate of male patients was 66.9% (10). In a study on traumas encountered in pediatric ED, 63.9% of the patients were male (11).

The mean age of the patients in our study was 53.2±26.9 years. In another study in which trauma cases admitted to the ED were analyzed, the mean age was reported to be 26.9±18.9 years (9). In another study in which blunt force trauma was analyzed, the mean age was 25.5±21.6 years (10). Aydın (12) reported that 41.6% of the patients were over 71 years of age in his study on pelvic fractures and femoral neck fractures.

Table 3. Distribution of diagnoses seen in patients

Diagnosis	Number of patients (n)	Ratio (%)
Femur fracture	221	39.3
Tibia fracture	90	16
Humerus fracture	61	10.8
Gonarthosis/coxarthosis	50	8.9
Radius fracture	36	6.4
Tendon incision	20	3.6
Fibula fracture	18	3.2
Muscle and connective tissue injury	12	2.1
Fracture of the bones of the hand	10	1.8
Large joint dislocation*	9	1.6
Fracture of the bones of the foot	8	1.4
Pelvis fracture	8	1.4
Patella fracture	5	0.9
Foreign body in soft tissue	5	0.9
Infection	4	0.7
Ulna fracture	2	0.4
Clavicle fracture	2	0.4
Amputation	1	0.2
Crush injury	1	0.2
Femur fracture	**563**	**100**

*Patients whose reduction procedure failed in the emergency department and surgical procedure is planned

Table 4. Distribution of femoral neck fractures and pertrochanteric fractures according to gender and age ranges

Gender	Number of patients (n)	Ratio (%)	Statistical analysis
Male	113	(63.4)	p<0.001
Female	65	(26.6)	chi-square: 20.197
Age range	**Number of patients (n)**	**Ratio (%)**	**Statistical analysis**
0-20	2	(1.1)	p<0.001 chi-square: 208.782
21-40	8	(4.4)	
41-60	16	(8.9)	
61-80	64	(36)	
81-100	87	(48.8)	
>100	1	(0.8)	
Total	**178**	**(100)**	

In our study, 70.7% of the patients evaluated as forensic cases were male. In a study, it was reported that 85% of the forensic trauma patients in whom orthopedic consultation was requested, were male (13). Similarly, in a study on orthopedic forensic cases admitted to the ED, the rate of male patients was 75.2% (14).

In our study, hospitalizations due to forensic cases were mostly observed in the age range of 21-40 years. Kaçmaz et al. (13) reported that the highest number of orthopedic forensic cases encountered in the ED was in the age range of 19-29 years. In the study by Uysal and Acar (14) the highest number of orthopedic forensic cases was in the 19-65 age range (58.6%). In our study, although the average age of forensic cases was similar to the literature, the general average age was higher. We thought that this was due to the fact that we evaluated only hospitalized orthopedic cases in our study and that the hospitalized patient group was older.

Table 5. Comparative analysis of reasons for admission and diagnoses

Diagnosis	Reason for application							
	Fall	Trauma by object impact	Traffic accident	Work accident	PCII*	GW*	Another**	Total
Femur fracture	193	2	19	1	1	1	4	**221**
Tibia fracture	58	4	23	4	0	0	1	**90**
Humerus fracture	51	1	8	1	0	0	0	**61**
Gonarthosis/ coxarthosis	0	0	0	0	0	0	50	**50**
Radius fracture	26	2	6	2	0	0	0	**37**
Tendon incision	0	1	3	0	16	0	0	**20**
Fibula fracture	16	0	2	0	0	0	0	**18**
Muscle and connective tissue injury	2	5	2	0	0	0	3	**12**
Fracture of the bones of the hand	3	3	2	0	0	2	0	**10**
Large joint dislocation	7	2	0	0	0	0	0	**9**
Fracture of the bones of the foot	4	1	1	0	1	1	0	**8**
Pelvis fracture	5	0	3	0	0	0	0	**8**
Patella fracture	3	0	1	0	0	1	0	**5**
Foreign body in soft tissue	0	0	1	0	0	1	3	**5**
Infection	2	0	0	0	0	0	2	**4**
Ulna fracture	1	0	1	0	0	0	0	**2**
Clavicle fracture	0	0	2	0	0	0	0	**2**
Amputation	0	1	0	0	0	0	0	**1**
Crush injury	0	1	0	0	0	0	0	**1**

p<0.001, Chi-square: 570.427, *PCII: Piercing and cutting instrument injury, **Patients presenting with joint and muscle pain without acute trauma and patients admitted for hospitalization outside working hours, GW: Gunshot wounds

In our study, we found that the highest number of patient hospitalizations occurred in July and seasonally in summer. In terms of admission time, there were more admissions between 08.00-15.59 hours. Especially, hospitalizations due to traffic

accidents were higher in the summer months. Similarly, in a study conducted by Ateşçelik and Gürger (10) on blunt force trauma, the highest number of admissions was observed in July and seasonally the highest number was observed in summer. In a study on penetrating traumas, the highest number of admissions was observed in June and between 13.00-16.59 hours (15). In our country, the fact that people spend more time outdoors during daylight hours and in the summer, season increases the possibility of exposure to traumas. As in the literature and in our study, it was observed that trauma cases increased during these periods.

In our study, we found that 17.6% of the patients hospitalized in the orthopedics clinic were forensic cases. The reason for the relatively low number of forensic cases may be that non-forensic injuries are more common in our region. In these cases, hospitalizations due to traffic accidents were more common. In the study conducted by Kaçmaz et al. (13), the most common forensic causes for which orthopedic consultation was requested from the ED were GW and PCII. In another study, the most common forensic cause for which orthopedic consultation was requested was traffic accidents (60.2%) (14). In a study conducted on forensic cases for which orthopedic consultation was requested from pediatric EDs, it was observed that consultation was requested most frequently due to blunt force trauma, PCII and GW (16). We think that there may be differences according to the centers and age groups involved.

In a recent study conducted in Türkiye, it was reported that the highest number of ED visits due to trauma was due to crush, fracture and dislocation (17). In another study in which patients were evaluated according to triage classification, ED admissions due to musculoskeletal disorders were significantly higher (18). Fall from height and motor vehicle accidents were among the leading causes of trauma leading to death in young patients (19-21). In our study, the most common causes of trauma were falls and traffic accidents. Falls consisted of different mechanisms such as falling from the same level, falling from a tree, falling on ice and snow, falling from an armchair and bed, and falling from a high position. In similar studies in the literature, the most common reasons for presentation to the ED after trauma were falls and traffic accidents (9,22,23). Musculoskeletal traumas and falls were the most common type of trauma encountered in the ED in patients aged 45 years and older. In studies conducted on the subject, the most common type of trauma in the elderly patient population over 65 years of age was falls, with a higher rate in men (24-26). In this study, it was found that fall cases were more common in patients over 60 years of age. In a recent study on pediatric traumas, it was reported that more than half of the trauma cases encountered under the age of 18 were related with falls (11). In our study, the most common type of trauma in the 0-20 age group was falls (61.2%). In a study conducted on femoral neck fractures and pelvic fractures, it was observed that the most common reason for admission was falls (65.3%) (14).

In our study, we found that admissions due to traffic accidents were the second most common and were significantly higher in males and in the 0-60 age range. In the study by Keskinoğlu and İnan (17) traumas due to assault and traffic accidents were found to be significantly higher in the age range of 18-29 years. In studies conducted in Türkiye, approximately one fourth of the patients admitted to the ED after traffic accidents are in the 20-30 and two thirds in the 16-44 age group (27,28). It is thought that the young and adult age group is more exposed to such traumas because they are more physically active than children and the elderly, have weaker risk perceptions, work more as a productive population and in different fields of work, and are more frequently involved in traffic.

The rate of fractures in trauma-related injuries is quite high. While femoral shaft fracture and wrist fracture are more common in the young and adult age group, fractures are most commonly seen in the hip, pelvis and spine with the effect of osteoporosis development with aging (29). In our study, we found that the most common reasons for hospitalization due to trauma were femur fracture, tibia fracture and humerus fracture, respectively. Femur fractures were seen in the 81-100 age group with 42.2%, tibia fractures in the 21-40 age group with 30% and humerus fractures in the 0-20 age group with 59%. Traffic accidents were the cause of 85.1% of tibia fractures in the 21-40 age group. In one study, it was reported that lower extremity injuries were the most common in the analysis of trauma cases encountered in the ED (9). In a study conducted on pediatric trauma cases, it was observed that the most common fractures in the 0-18 age group were radius and humerus fractures, respectively (17). In our study, we found that hospitalizations for humeral lower end fractures were more common in the pediatric age group. In a study in which patients diagnosed with fractures in the ED were analyzed, it was reported that hospitalizations were in the order of frequency as radius and ulna, fibula, humerus lower end, femur proximal end and tibia lower end fractures (30). We think that the reason for the differences between the studies is the difference in the approach of orthopedic clinics in different hospitals. Discharge after treatment in the ED for conservative treatment may change the hospitalization diagnoses and rates.

90% of femoral neck and pertrochanteric fractures occur in patients over 65 years of age. It is known that hip fractures are the second most common cause of hospitalization in the elderly population. It is predicted that these fractures will become more common with the increase in the elderly population and may increase morbidity and mortality. In the USA, 341,000 cases were observed in 2008 and this number is estimated to be 582,000 in 2040 (14,31). In our study, we found that 31.6% of the patients hospitalized in the orthopedic clinic had proximal end fractures of the femur, and the age group with the highest number of hospitalizations was between 61-80 years. Of the patients 63.4% were male. In his thesis study on the subject, Aydın (12) reported that 41.6% of patients with pelvis and femoral neck fractures were over 71 years of age and 50.5% were male (14). Pamuk (30) reported in his study that 14.3% of the patients hospitalized from the ED to the orthopedic clinic were due to proximal femur and pelvis fractures.

In his study, Pamuk (30) reported the mean length of stay of patients hospitalized in the orthopedic service as 10.3±8.1 days (30). In our study, the mean duration of hospitalization was 3±3.7 days, 2.75 days for patients hospitalized in the ward and 23 days for patients hospitalized in ICU. In our study, the 1-year mortality rate of patients hospitalized from the ED to the orthopedic clinic was 1.5%.

Study Limitations

The only limitation of the study was that it was planned retrospectively.

Conclusion

In conclusion, the majority of hospitalizations from the ED to the orthopedic clinic are due to falls. It should be kept in mind that femoral neck and pertrochanteric fractures are common especially in elderly patients and humeral lower end fractures are more common in the pediatric age group.

Ethics

Ethics Committee Approval: The study was started after the approval of the ethics committee of Nevşehir Hacı Bektaş Veli University Rectorate Non-Interventional Clinical Research Publication Ethics Committee dated 16.10.2023 and numbered 2023/02 decision.

Informed Consent: Retrospective study.

Footnotes

Authorship Contributions

Surgical and Medical Practices: M.A, N.B., Concept: M.A, N.B., Design: M.A, N.B., Data Collection or Processing: M.A, N.B., Analysis or Interpretation: M.A, N.B., Literature Search: M.A, N.B., Writing: M.A, N.B.

Conflict of Interest: No conflict of interest was declared by the authors.

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